III. REMARKS

Claims 1-20 are pending in this application. By this response, no claims have been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Furthermore, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1-20 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Gyvez et al. ("IC Defect Sensitivity for Footprint-type Spot Defects," 1992), hereinafter "Gyvez." Applicants respectfully request withdrawal of the rejection in light of the following remarks.

With respect to claim 1, Applicants submit that Gyvez fails to disclose each and every element of the claimed invention, including "creating a new shape from the intersecting shapes in the case that the intersection is not totally contained by one of the intersecting shapes, and adding the new shape to an active list of the plane sweep." (*See* claim 1, and as similarly recited by claims 8 and 15). In the Office Action, the Office asserts that "protrusion and intrusion defects generated during process step t_i affect active patterns at the same layer where they occur, and may also have an impact on active patterns at different layers processed at some t_j, j ≠ i." Office Action, p. 3. The Office also asserts that a "linked list of meaningful results" in Gyvez further teaches this claimed element. Id. In response, Applicants submit that Gyvez simply discloses that protrusion and intrusion defects generated during a process step (t_i) may affect another process step. *See* p. 641, ¶ 11. However, this fails to disclose the addition of a new shape to an active list of the plane sweep. Also, "protrusion and intrusion defects" is not

equivalent to a new shape formed from intersecting shapes in the case that the intersection is not totally contained by one of the intersecting shapes. As defined by Gyvez, the intrusions and protrusions are simply spot defects in hard structures. Finally, the linked list of meaningful events disclosed by Gyvez is merely a method for keeping track of fault types, a fault count, and a fault multiplicity in the same line section. *See* p. 652, ¶ 1. However, this too fails to disclose adding a new shape to an active list of the plane sweep. Accordingly, Applicants submit that Gyvez fails to disclose each and every element of the claimed invention and respectfully request withdrawal of the rejection.

With respect to dependent claims 5, 12 and 19, Applicants submit that Gyvez fails to disclose, *inter alia*, assigning edges of the new shape to be distal edges of the intersecting shapes. As clearly shown, the critical regions shown in resulting FIG. 16(d) are not distal edges of the intersecting shapes. Instead, the new shape is simply formed by expanding and/or shrinking each susceptible site and joining together the result. Page 651, ¶ 7. Nowhere does Gyvez disclose that the calculated critical area is based on distal edges of intersecting shapes. In sharp contrast, in the present invention, a wider shape may be created by assigning the edges of the new shape to be distal edges of the intercepting shapes if the intersection is not totally contained by one of the intersecting shapes. As shown in FIG. 4 of the present application, the upper and lower edges of a new shape AC formed by the intersection of shape A and shape C in FIG. 3 are the upper edge of shape C and the lower edge of shape A. Accordingly, new shape AC has a width w1. Gyvez fails to disclose this claimed feature and Applicants respectfully request withdrawal of the rejection.

With respect to all other dependent claims, Applicants herein incorporate the arguments presented above with respect to the independent claims from which the claims depend. The

dependent claims are believed to be allowable based on the above arguments, as well as for their

own additional features.

IV. CONCLUSION

In light of the above, Applicants respectfully submit that all claims are in condition for

allowance. Should the Examiner require anything further to place the application in better

condition for allowance, the Examiner is invited to contact Applicants' undersigned

representative at the number listed below.

Respectfully submitted,

/Darrell. Pogue/

Darrell L. Pogue

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